

3.5 - 59.1mmol/L) with mean creatinine 388umol/L (range 54 - 926umol/L). 55.3% had intermittent haemodialysis, 10.5% sustained low efficiency haemodialysis and 34.2% continuous renal replacement therapy. There was 26(68.4%) death, 6 (15.8%) achieved full renal recovery, 5(13.2%) partial renal recovery and 1(2.6%) was dialysis dependent.

In the non-RRT group (n=89, 70.1%), mean urea was 13.6mmol/L (range 1.4 - 43.3mmol/L) with mean creatinine 199.2umol/L (range 51 - 933umol/L). There was 19(21.3%) death, 47(52.9%) full renal recovery and 23(25.8%) partial renal recovery.

Conclusions: Sepsis was the main etiology of AKI in our study with a high mortality rate. Majority of the patients had early initiation of RRT, however their outcome could not be compared with the late initiation group as both group were not matched.

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RELATIONSHIP BETWEEN URINE OUTPUT AND TIMING OF INITIATION OF CRRT IN AKI

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Category: Epidemiology and Outcomes from AKI

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Keywords: acute kidney injury, oliguria, non-oliguria, CRRT, mortality
Introduction: Observational studies have shown early initiation of CRRT in AKI patient is associated with better prognosis. However no consensus exists on the best timing and factors to initiate CRRT.

Objectives: To determine the factors and outcome in relation to urine output prior to initiation of CRRT.

Methods: This is a retrospective, single center study involving all patients with AKI underwent CRRT in HKL from October 2016 until April 2017. Data were extracted using data collection form from local database in Intensive Care Unit. Descriptive analysis was performed using SPSS version 20.0. All demographic characteristics and categorical data were presented as frequencies (N) and percentages (%). Meanwhile, continuous variables were expressed as mean and standard deviation (SD) where appropriate.

Results: A total of 107 AKI patients who received CRRT between October 2016 and April 2017 were screen, but only 67 were included in the study and divided into 2 groups based on 6 hours urine output prior initiation of CRRT. Oliguria group defined as median 6 hour urine output < 100mls and non-oliguria group is urine output > 100mls. Descriptive analysis done to compare demographic, clinical and biochemical parameters between groups.

Majority of AKI patients requiring CRRT is oliguria (76%, n= 51) compared to non-oliguria patients (24%, n=16). There are no significant different in mean ages and gender between the 2 groups (p=0.659 and p=0.759 respectively). Oliguria group have numerically higher comorbidities (Diabetes mellitus 30.8%, hypertension 35.2%, CKD 39.7% but not statistically significant. There are also no significant difference in AKI aetiology (infection, ischemic non nephrotoxic, cardio-renal syndrome, pre renal and miscellaneous) between the 2 groups (p=0.720). Majority of patients in oliguria group require ≥3 vaso-pressors (37%, n=19) while only 31% (n=5) in non-oliguria group (p=0.900).

There was no significant differences in blood urea, creatinine and potassium between the 2 groups (p=0.906, p=0.814 and p= 0,254 respectively). However patient in oliguria arm had more severe metabolic and lactate acidosis compared to non-oliguria group (p=0.013 and p=0.057). Majority patient in oliguria arm had early initiation of CRRT (80%, n=41) compared to non-oliguria patient (62%, n=10). The mortality rate between the group is similar (p=0.749).

Conclusions: This study did not show any difference in outcome based on urine output volume at 6 hours prior initiation of CRRT. This could be explained by small sample size and single center study.

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RENAL BIOPSY OUTCOMES IN PATIENTS WITH UNEXPLAINED RISE IN SERUM CREATININE

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Keywords: renal biopsy, outcome, rise in creatinine

Introduction: Renal biopsy is an invasive but necessary procedure to determine the exact diagnosis of patients, especially in patients with an unexplained renal impairment. The histopathological examination is vital not only for diagnosis, but also to prognosticate patients' condition.

Objective: This study was aimed at evaluating the results of renal biopsy in patients with unexplained rise in serum creatinine, and its association with the patients' clinical characteristics.

Methodology: This was a retrospective study done with data collected from biopsy results in Hospital Tg Ampuan Afzan, Kuantan between 2016 until April 2017. Baseline demographics, risk factors, rate and duration of worsening serum creatinine and the biopsy results were recorded.

Results: There were 21 patients in which 14 (66.6%) were males, and 7 (33.3%) of the patients were females. The median age of the patients were 32.0 (IQR 21.0) years. A total of 15 (71.4%) patients have got no other disease comorbidities, and 5 (23.8%) were diabetics. Three (14.2%) patients have history of taking herbal supplements. The median duration of deranged creatinine was 14.0 (IQR 13.0) days. The median urea on presentation was 10.0 (IQR 11.1) mmol/L, and the median Creatinine was 306.0 (IQR 324.0) µmol/L. The median rise in creatinine was 137.0 (IQR 182.0) µmol/L. Biopsy complications which were perinephric collection were noted in two patients (9.5%). The median glomeruli number attained was 20 (IQR 16). Mesangial matrix expansion and hypercellularity was noted in 12 (57.0%) patients. Tubular atrophy and interstitial inflammation was present in 17 (80.9%) patients. Out of the 21 biopsies, 13 (61.9%) were diagnosed to have glomerulonephritis. Within that group, two (9.5%) of the patients were diagnosed with Crescentic Lupus Nephritis Class IV. Other glomerulonephritis included IgA Nephropathy in 2 patients (9.5%) and Minimal change GN (9.5%). Eight (38.1%) of the results showed hypertensive changes (14.3%), Diabetic changes (4.3%), focal global glomerulosclerosis (4.3%) and Thrombotic microangiopathy (4.3%). The creatinine on presentation and also interstitial inflammation and tubular atrophy is not significantly correlated with the glomerulosclerosis group.

Conclusion: Renal biopsy definitely still plays the most vital and irreplaceable role in the investigation of cases with unexplained renal impairment. Despite a vastly variable biopsy results between patients, renal biopsy has helped in determining the best treatment and prognosis for the patients in our study.

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CHARACTERISTICS AND OUTCOME OF AKI ADMISSIONS IN NEPHROLOGY WARD. A SINGLE CENTRE EXPERIENCE

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Category: Epidemiology and Outcomes from AKI

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Keywords: Human Immunodeficiency Virus, Tenofovir, Protease Inhibitor, Acute Kidney Injury

Introduction: Acute kidney injury (AKI) is an important reason for hospitalization and admission to the nephrology wards. Literature has shown that it often associated with severe consequences.

Objective: To determine the prevalence, risk factors and outcome in patients admitted to Nephrology ward for AKI.

Methods: This is a retrospective observational study conducted in Nephrology ward 7B, Hospital Selayang. All patients who were admitted with the diagnosis of AKI from 1st January 2015 till 30th June 2016 were identified and data were collected from patients' electronic medical records in the total hospital information system. Statistical analysis using SPSS version 23.

Results: A total of 2500 patients were admitted in Nephrology Ward 7B during study period. 8.44 % (n=211) admissions were diagnosed as AKI but only 3% (n =84) fulfilled the criteria based on AKIN for diagnosis of AKI.